

Appl. No. 10/797,726  
Amdt. dated January 23, 2006

Amendments to the Specification:

Please replace the paragraph at page 1, line 26 with the following new paragraph:

A system core having an internal memory which transfers data from an external device to the internal memory is described. To this end, the system core includes a processor, a direct memory access (DMA) controller, an instruction memory and an internal memory. The instruction memory contains processor instructions and DMA instructions. The DMA controller fetches DMA instructions from the instruction memory. The DMA controller executes the fetched DMA instructions and thus populates the internal memory with data from the external device. The processor then operates on the data found in the internal memory. By having a DMA controller which can fetch and execute DMA instructions, the present invention advantageously provides a flexible system core such as providing the system core the feature of populating internal memory according to a particular pattern. Similarly, the system core has the flexibility to read from internal memory and transfer contents of internal memory to external memory according to a particular pattern.